

Application no. 09/516,849
Amdt. dated March 15, 2004
Reply to Office Action of December 15, 2003

Amendment to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (original): A selectable prioritization method for a data communication switch, comprising the steps of:

receiving a plurality of packets including respective first priorities on a first port;
generating respective second priorities as a function of the respective first priorities;
prioritizing selected ones of the plurality of packets as a function of respective ones of the second priorities; and
transmitting the plurality of packets including the respective second priorities on a second port.

Claim 2 (original): The method according to claim 1, wherein the plurality of packets have respective source addresses and the ones of packets prioritized as a function of respective ones of the second priorities are selected as a function of respective ones of the source addresses.

Claim 3 (original): The method according to claim 1, wherein the plurality of packets have respective destination addresses and the ones of packets not prioritized as a function of respective ones of the second priorities are prioritized as a function of respective ones of the destination addresses.

Claim 4 (original): The method according to claim 1, wherein the respective first priorities are inbound 802.1Q tag priorities.

Claim 5 (original): The method according to claim 1, wherein the respective second priorities are regenerated 802.1Q tag priorities.

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Claim 6 (previously presented): A selectable prioritization method for a data communication switch, comprising the steps of:

receiving a packet with an included priority;
determining a first priority for the packet based on the included priority;
determining whether to mark the packet; and
prioritizing the packet in accordance with the first priority if the packet is marked.

Claim 7 (original): The method according to claim 6, further comprising the step of:
prioritizing the packet or not in accordance with a second priority as a function of whether the packet is marked or not.

Claim 8 (original): The method according to claim 6, wherein the first priority determination is made as a function of a first value in the packet and the marking determination is made as a function of a second value in the packet, wherein the first and second values are different.

Claim 9 (original): The method according to claim 6, wherein the first priority is instantiated in the packet upon transmission from the switch.

Claim 10 (original): The method according to claim 6, wherein the mark, if any, is a single bit.

Claim 11 (original): The method according to claim 6, wherein the mark, if any, is removed from the packet prior to transmission from the switch.

Claim 12 (original): The method according to claim 6, wherein prioritization includes applying the packet to a queue determined as a function of the first priority.

Claim 13 (original): The method according to claim 7, wherein prioritization includes applying the packet to a queue determined as a function of the second priority.

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Claim 14 (original): The method according to claim 8, wherein a second priority is determined as a function of a third value in the packet, wherein the first and second and third values are different.

Claim 15 (original): The method according to claim 8, wherein the first value is a tag priority.

Claim 16 (original): The method according to claim 8, wherein the second value is a source address.

Claim 17 (original): The method according to claim 13, wherein the third: value is a destination address.

Claim 18 (previously presented): A data communication switch, comprising:
a first network interface for receiving a packet with an included priority from a first network,
for determining a first priority for the packet based on the included priority,
for marking the packet with a priority select indicator and
for transmitting the packet; and
a second network interface coupled to the first network interface
for receiving the packet,
for prioritizing the packet depending on the value of the priority select indicator,
wherein the packet is prioritized in accordance with either the first priority or with one or more packet fields and
for transmitting the packet to a second network.

Claim 19 (original): The switch according to claim 18, wherein the second network interface is operative for prioritizing the packet or not in accordance with a second priority as a function of whether the packet is marked or not.

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Claim 20 (previously presented): The switch according to claim 18, wherein the first network interface is operative for determining the first priority as a function of the included priority in the packet and is operative for determining whether or not to mark the packet as a function of a second value in the packet, wherein the included priority and second value are different.

Claim 21 (original): The switch according to claim 20, wherein the second network interface is operative for determining a second priority as a function of a third value in the packet, wherein the included priority and the second and third values are different.

Claim 22 (original): The switch according to claim 18, wherein the mark, if any, is a single bit.

C/ **Claim 23 (original):** The switch according to claim 18, wherein the mark, if any, is removed from the packet prior to transmitting the packet to the second network.

Claim 24 (previously presented): The method according to claim 20, wherein the included priority is a tag priority.

Claim 25 (original): The method according to claim 20, wherein the second value is a source address.

Claim 26 (original): The method according to claim 21, wherein the third value is a destination address.

Claim 27 (previously presented): A selectable prioritization method for a data communication switch, comprising the steps of:

- receiving on a first port a packet with a tagged priority;
- generating a first priority as a function of the tagged priority;
- including the first priority in the packet;
- marking the packet or not based on a first value associated with the packet;

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identifying a second priority based on a second value associated with the packet; and
determining whether to apply the first priority or the second priority based on whether
the packet is marked or not.

Claim 28 (currently amended): A data communication switch, comprising:

(a) a first network interface for:

- (i) receiving a plurality of packets from a first network, wherein one or more of
the packets comprises an included priority;
- (ii) determining a first priority based on the included priority for each of the
plurality of packets;
- (iii) appending a priority select indicator comprising one or more bits to the
plurality of packets, wherein the priority select indicator is assigned a
first value or a second value depending on a first packet field; and
- (iv) transmitting the plurality of packets;

(b) a second network interface operatively coupled to the first network interface for:

- (i) receiving the plurality of packets;
- (ii) prioritizing each of the one or more packets as a function of the value of
the priority select indicator, wherein the packet is prioritized in
accordance with:
 - (1) the first priority if the value of the priority select indicator is the
first value;
 - (2) a second priority if the value of the priority select indicator is the
second value; and
- (iii) transmitting the one or more packets to a second network.

Claim 29 (previously presented): The switch according to claim 28, wherein the included
priority is a 802.1Q tag priority and the first priority is a regenerated 802.1Q tag priority.

Claim 30 (previously presented): The method according to claim 28, wherein the first
packet field is a packet source address.

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Claim 31 (previously presented): The switch according claim 28, wherein the priority select indicator is removed from the one or more packets prior to transmitting to the second network.

Claim 32 (previously presented): The switch according to claim 28, wherein the second priority is determined from policy rules.

Claim 33 (currently amended): A selectable prioritization method for a data communication switch, comprising the steps of:

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- (a) receiving, on a first network interface, one or more packets, wherein each of the one or more packets comprise a first priority;
 - (b) generating a second priority associated with each of the one or more packets as a function of the respective first priority;
 - (c) appending the associated second priority to each of the one or more packets;
 - (d) appending a priority select indicator comprising one or more bits to each of the one or more packets based on a first value associated with each packet;
 - (e) prioritizing each of the one or more packets as a function of the priority select indicator, wherein packets are prioritizes as a function of the second priority or a second value associated with each packet; and
 - (f) transmitting the one or more packets on a second network interface.

Claim 34 (previously presented): The method according to claim 33, wherein the first value is a packet source address.

Claim 35 (previously presented): The method according to claim 33, wherein the second value is a destination address.

Claim 36 (previously presented): The method according to claim 33, wherein the first priority is an inbound 802.1Q tag priority.

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Claim 37 (previously presented): The method according to claim 33, wherein the second priority associated with the one or more packets is a regenerated 802.1Q tag priority.

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Claim 38 (new): The method according to claim 1, wherein the method further comprises the step of replacing the first priorities with the respective second priorities of selected ones of the plurality of packets prior to prioritizing selected ones of the plurality of packets.
